

PIR-100PT DUAL ELEMENT PIR WITH PET IMMUNITY

Manual and Installation

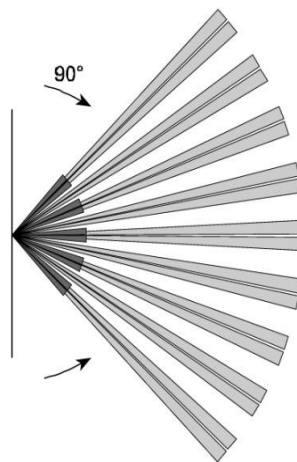
Introduction

The new generation dual element PIR detector is based with an ASIC technology MCU processor, which can distinguish the real motion of an intruder or the interference of the environmental factors. The adopted new algorithm has the PIR detector immuned to the strong EMI/RFI and light interference. The equipped thermal element and the temperature compensation technology greatly increase the applicability of different temperature environment.

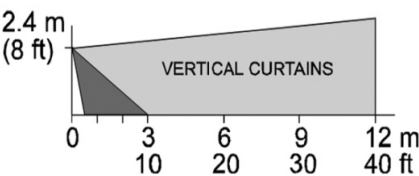
Specifications

Detection Mode:	Dual-element PIR
Power Input:	9VDC~14VDC
Power Consumption:	10mA in standby mode 30mA in alarm mode
Alarm Output:	NC, Solid State Relay up to 30VDC, 100mA
Alarm Period:	2 Sec
Pulse Count:	1 or 2 or 3, Selectable
LED indicator:	LED is on When Alarm, ON/OFF Selectable
Tamper Output:	NC, 30VDC, 1A Open when cover is removed
RFI Protection:	30V/m 10 - 1000MHz
EMI Protection:	50000V Electronic Interference
White Light Immunity:	Up to 8000 LUX
Temperature Compensation:	Yes
Sensitivity Adjustable:	Yes
Pet Immunity:	15Kg or 25Kg, Selectable
Detection Area:	90 degree X 12M
Operating Temperature:	-10°C to 50°C
Operating Humidity:	≤95%
Dimensions:	118X60X38.8MM

Top View



Side View



Coverage Pattern

Installation

1. The detector is designed to be applicable of wall mount, corner mount or ceiling mount with bracket. The installation height is around 2.2-2.4m. For better performance, the detector should avoid the location close to the following sources of interference: reflective surfaces, direct air flow from vents, fans, windows, sources of steam, oil vapor, infrared light sources and objects causing temperature changes such as heaters, refrigerators and ovens.

2. The detector should be straight after installation, and the detection area is better across the lens, not facing the lens.

Step 1: Unscrew the holding screw to remove the front cover, and then unscrew the screw on PCB to remove the pcb. You will find there are several knock-outs for different installation purpose.

Step 2: Drill or break out the knock-outs you need, and connect the wires, or fix the bracket you need. Then mount the base to the wall, corner or ceiling with bracket.

Step 3: Fix the PCB again and close the cover with screw. (please set the detector before step 3, refer to the setting program).

Step 4: Test the detectors. (refer to the walk test program)

Detector Wiring

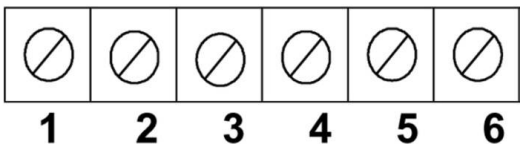
Please follow the following instructions for wiring and functions setting.

Terminal 1: marked - (GND)

Connect it to the negative power supply or GND of alarm panel

Terminal 2: marked + (12V +)

-12VDC+ TAMPER RELAY



Terminal Diagram

Connect it to the positive power supply (9VDC~16VDC)

Terminal 3 & 4: marked TAMPER

Usually connect it to the 24-hour zone. If the front cover is opened, an open signal will be sent to the alarm panel immediately. Sometime an EOL resistor is required.

Terminal 5 & 6: marked RELAY



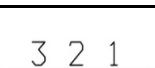
This is the alarm output from detector, connect it to a Normally Colsed zone of alarm panel. Sometime and EOL resistor is required.

Function Setting

The digital detector is designed with different function settings for different purposes and environment.



1. Pulse Count Setting

This jumper is used for setting the PULSE count function in order to provide PIR sensitivity control according to the environment.

	Very stable environment Jumper #1 = ON Without PET
	Moderate nuisance situation Jumper #2 = ON PET up to 15 kg
	Relatively high chance of false alarms Jumper #3 = ON PET up to 25 kg

2. LED Setting

This jumper is used for setting - LED Enable / Disable.

	ON - LED ENABLE. The LED will activate when the detector is in alarm condition.
	OFF - LED DISABLE, The LED is disabled.

4. Sensitivity Adjustment

Use the potentionmeter with mark PIR to adjust the sensitivity between 15% to 100% accroding to the enviroment.The factory default sensitivity is 60%.

Walk Test

It is important to test the coverage area after installation. And it is recommended to test the detector once half year to ensure the detector is in proper status. After the detector is powered for about 60 seconds for warm up time, please follow the steps to test it:

Step 1: remove the front cover.Set LED in ON position, remount the detector.

Step 2: Adjust the detector angle to keep the len across the detection area.

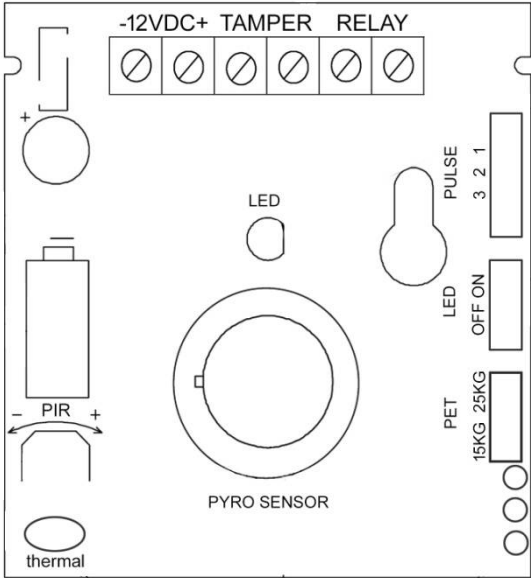
Step 3: Walk across from the far end of the coverage pattern in both sides.

The LED should be on for 2~3 seconds each time when the motion is detected.

The interval between each motion is not less than 5 seconds.



Step 4: After finishing the test, you can set the LED off, and screw the front cover.

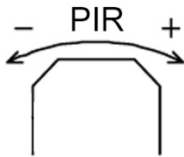
The detector design is according to EN50131-2-2:2008 grade 2 standard
CE approved.



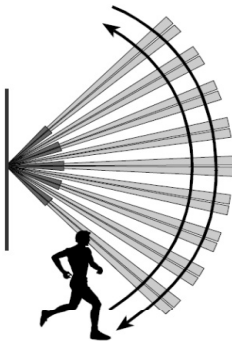
PCB Diagram

3. Pet Immunity Setting

	25Kg 15Kg	Immune to pet weighting up to 15 kg
	25Kg 15Kg	Immune to pet weighting up to 25 kg



sensitivity potentionmeter



Coverage Pattern